FINCK FLORAL CO.
R #12, Box 287
Kirkwood 22, Missouri

Orchid Growers & Importers

Spring Price List

We have tried to give a short description of the flowers of each species and have listed the approximate blooming time. If you are a beginner and are not certain which plants would be suited for your growing facilites we will be happy to help you make the proper selection.

Those who wish additional information on various plants or have any questions on cultural requirements, please do not hesitate to write; we will be happy to help anyone as much as possible. All letters and cards will be answered as fast as time permits. Cultural literature will be sent on request.

LIMITED OFFER OF FINE HYBRID SEEDLINGS IN 2½ in. POTS

These plants are all in 2½ in. pots and are ready for shifting during their present growing season. The plants average 5 to 10 inches high. The finest parents available have been used in these crosses, and these seedlings are very vigorous and healthy and the blooms should be outstanding. All crosses are priced at $2.75 per plant, except those preceeded by the asterisks (**) which are $3.00 per plant.

**No. 35 C. ALESIA ALBA This hybrid is a strong growing white with colored lip. The flowering season is Spring.

**No. 36 C. ALICE PEARCE (C. Mossiae "Reineckiana" X C. Princess Royal alba) A Spring flowering white with a highly colored lip. Flowers have a very fine form.

**No. 37 C. CATHERINE PATTERSON (C. Enid alba X C. Mrs. Fred Knollys alba) Winter blooming whites with colored lips. This hybrid usually has very large flowers.

**No. 38 C. MILLE. LOUISE PAWELS (C. Edithae X C. Intertexa "Juliette") An Early Spring blooming, strong growing, Pure White.

**No. 39 C. YVONNE ADAIR (C. Clementine Goldfarb X C. Pegeen Fitzgerald) A rapidly growing Mid Winter blooming Pure White Hybrid. The flowers are large, have a heavy texture and usually each lead produces 2 to 4 blooms. This hybrid was recently pictured in the American Orchid Society Bulletin.

No. 42 LC. RAY BOLGER (Lc. Windermere, A.M. X C. Enid) Late Winter and Spring blooming, large, dark, well formed flowers.

No. 43 LC. INTEGRITY X C. TRIANAE "ORANGE LIP" The flowers should be large, dark and heavy textured. Blooms during the Winter Holiday Season.

No. 45 C. MYRON McCORMICK (C. Dinah x Lc. Excelsior X C. Mossiae) A Spring blooming hybrid with large, dark blooms, with very dark lips.

No. 48 LC. BOU PHILIPPO (Lc. Windermere, A.M. X C. Mossiae) Blooms for the Easter Season. It has the free flowering qualtities of C. Mossiae, but the flowers are much larger, darker and better shaped than the average species.

[illegible]

No. [illegible] [illegible] blooming, large, deep, with [illegible]

No. [illegible] [illegible] and heavy substance. Blooms [illegible]

No. 15 [illegible] ing hybrid with large, dark blooms, [illegible]

No. [illegible] [illegible] Season. It has the free flowering [illegible] much larger, darker and better [illegible]

**No. 49 C. ENID ALBA (C. Mossiae "Reineckiana" Young's Variety X C. Gigas "F.M.B.") This hybrid blooms twice a year and has flowers 7 to 9 in. across. The flowers are very showy, have grand form and texture and are whites with colored lips. Plants produce one to four blooms per lead.

No. 50 BLC. SHERMAN BILLINGSLEY (Blc. Eva Patterson X C. Belgica, A.M.) A Winter flowering, large, well shaped, medium rose-lavender hybrid.

No. 51 C. MARGARET MORAN (C. Royana X C. Carmen) This hybrid is Spring Flowering, vigorous and very colorful.

No. 52 C. BING CROSBY (C. R. Cadwalader X C. Royana) A Spring blooming, very fine, large, dark hybrid.

No. 53 C. MOSSIAE X LC. PRINCESS MARGARET A fine, vigorous, large, dark hybrid for the Spring season.

No. 54 LC. AUTHUR MILES A vigorous, large, dark hybrid for the Easter Season.

BLOOMING SIZE SPECIES & HYBRID PLANTS

abbreviations

Sp. - Spring blooming	S - Sepals	C - Cool should be grown at	(50 to 60 F.)
Su. - Summer "	P - Petals	I - Intermediate ditto	(55 to 65 F.)
Au. - Autumn "	L - Lip	W - Warm ditto	(65 to 70 F.)
Wi. - Winter "	fls. - flowers	b. - species recommended for beginners.	
V. - Various "	* - Commercial, flowers grown for commercial purposes.		

CATTLEYAS

price per plant unestablished

C. Aclandiae. fls. 3 in. across; S&P olive-green, spotted with purple, L magenta-purple. Su. I. to W. .... $ 5.50

b*C. amethystoglossa. 3 to 20 fls. 4 in. across; S&P rose-purple; L mageta-purple. Sp. I. 5.50

b.C. bicolor. fls. about 4 in. across; S&P bronzy-green; L rose-purple. Su. I. 4.50
Established plants in 4 to 5 in. pots $5.25 ea., extra large plant $7.50

b*C. Eldorado. 2 to 3 fls. 4 to 6 in. across; S&P rose; L purplish with deep orange throat. Au. I. 6.50
Established plants in 5 to 6 in. pots $6.75 each.

C. Forbesii. 2 to 5 fls. 3 to 4 in. across; S&P yellowish; L yellow, lined with red. Sp. to Su. I. 4.00
Plants in 3½ in. pots with new growths started $4.50 each.

b*C. gigas. 2 to 7 fls. 8 to 10 in. across; S&P rose; L crimson-purple with yellow marking in throat. Su. I. Large established plants in 6 to 7 in. pots $7.50 to $10.00 each.

C. granulosa. 3 to 7 fls. about 4 in. across; S&P olive-green spotted with brown; L whitish, spotted with crimson. Su. I. 5.50

C. guttata. 3 to 15 fls. 2 to 4 in. across, S&P yellow, spotted with crimson, L rose-purple. Su. I. 4.50

C. guttata var. Leopoldii. Habit much stronger than type. Spikes carrying up to 30 fls.; S&P bronze, spotted with crimson; L crimson-purple. ... 5.00

b*C. Harrisonae. 2 to 5 fls. 4 to 5 in. across; S&P rose-lilac; L rose-purple with yellow-orange disc. Su. I. 4.25
Established plants in 4 in. pots $5.00 each, 6 in. pots $5.50 each.

b*C. intermedia. 3 to 5 fls. 4 in. across, S&P light rose; L rose-purple. Su. I. 4.25
Established plants in 5 in. pots $5.00 each.

	price per plant unestablished
b*C. labiata. 2 to 7 fls. 6 to 8 in. across; S&P bright rose; L large, deep crimson-purple, throat marked with yellow. Au. I. Established plants in 4 in. pots $5.50 each, 5 in. pots $5.75 each.	$ 5.00
C. luteola. Dwarf species, fls. 2 in. across, yellow; L lined with purple. Su. I.	4.45
b*C. Mendelii. 2 to 5 fls. 6 to 8 in. across; S&P rose; L magenta-crimson. Sp. & Su. I. Established plants in 4½ to 5 in. pots $5.00 to $7.50 each.	
b*C. Percivaliana. 2 to 4 fls. 4 to 5 in. across; S&P deep rose; L richly colored with purple, crimson and maroon, bordered with lilac. December. I. Established plants in 6 to 7 in. pots $5.00 each.	
b*C. Trianae. 2 to 3 or more fls. 6 to 8 in. across; S&P rose-lilac; L purple-crimson, throat orange. Wi. I. Established plants in 6 to 7 in. pots $5.00 each.	
C. velutina. fls. 4 to 5 in. across; S&P orange-yellow, spotted with purple; L whitish tinged with yellow & lined with violet. Fragrant. Su. I.	5.50
*C. violacea. (syn. superba). 3 to 5 fls. 5 in. across, fragrant; S&P deep rose; L rich crimson-purple. Su. I. to W.	5.50
C. Walkeriana. fls. large, S&P rose, L deep rose. Wi. I.	4.50
b*C. Warnerii (syn. labiata Warnerii). 2 to 7 fls. 6 to 9 in. across, S&P deep rose, L crimson. Su. I. Established plants in 5 to 6 in. pots $6.00 each.	5.50

DENDROBIUMS

b*D. densiflorum. Many fls., 2 in. across, orange-yellow, L darker. Sp. I.	4.50
b*D. " var. Aureo-Flavum. fls. deep yellow.	4.50
b*D. formosum giganteum. Spikes 2 to 5 flowered, 4 to 5 in. across, pure white, except for orange-yellow stain on lip, long lasting, fragrant. Au. W.	4.50
b*D. Infundibulum. 2 to 4 fls. in clusters, 4 in. across, pure white, except for yellow stain on lip. Sp. & V. I.	4.50
b*D. phalaenopsis. Spikes 5 to 15 flowered, about 3 in. across, color very variable, usually deep rose with magenta-purple lip. Au. & V. I. to W. Offsets in 2 to 2½ in. pots, 2 to 3 bulbs per plant, 4 to 9 in. high. Many of these plants have flowered, or will flower next fall & winter. $2.50 each.	

LAELIAS

*L. cinnabarina. 6 to 15 fls. 3 in. across, bright cinnabar-red. Sp. I.	4.50
b*L. crispa. 4 to 9 fls. 6 to 8 in. across; S&P white; L crisped, bright purple. Su. I. Established plants in 7 in. pots $7.50 per plant.	6.50
L. crispilabia. S&P lilac-mauve; L deep amethyst & white, crisped. Sp. I.	4.00
*L. flava. 8 to 10 fls. canary-yellow. Su. & Au. C. to I.	4.00
*L. harpophylla. 3 to 9 fls. 2 to 3 in. across, bright orange-red; L margined with white. Wi. & Sp. I. Plants in 3 in. pots with new growths started $5.00 each.	4.50
L. longipes. Dwarf species. fls. 1½ in. across; S&P light mauve; L yellow & maroon. Su. I.	4.00
L. Lundii (syn. Regnelli). Dwarf species. fls. 1½ in. across, lilac. V. I.	4.00
*L. Perrinii. 2 to 5 fls. 5 in. across; S&P rose; front lobe of L deep crimson-purple. Wi. I.	5.00
b*L. purpurata. 3 to 9 fls. 6 to 9 in. across; S&P light rose; L has yellow throat striped with crimson, front lobe rich crimson-purple. Sp. & Su. I. Established plants in 6 to 7 in. pots $6.50 each.	5.50
b*L. purpurata var. semi-alba. Like type, except S&P are white. Established plants in 6 to 7 in. pots $10.50 each.	9.50
L. rupestris. Dwarf species. fls. over 1 in. across, purple-violet. Au. I.	4.00
b*L. tenebrosa. 2 to 5 fls. 6 to 9 in. across; S&P reddish-brown; L deep purple. Au. I.	6.50
*L. xanthina. 2 to 5 fls. 3 in. across, yellow; L veined with crimson-purple. Sp. & Su. I.	5.00

price
per plant
unestablished

MILTONIAS

b*M. candida. S&P chestnut-brown & yellow; L white & purple. Au. I. ......$ 5.50

*M. Clowesii. fls. 3 in. across; S&P like M. candida, L white & purple. V. I. 5.00

b*M. Regnelli. 3 to 5 flat fls. 2 to 3 in. across; S&P white or flushed with rose at base; center of L light rose. Au. I. 3.75

M. Russelliana. S&P reddish-brown, L rose-lilac. V. I. 3.75

b*M. spectabilis var. Moreliana. Large deep purple fls. Su. I. 5.00

ONCIDIUMS

b*O. crispum var. grandiflorum. Many flowered, fls. 2 to 3 in. across or larger, bright yellow spotted with brown. V. C. 4.50

b.O. flexuosum. Many fls. 1 in. across, S&P red-brown, L yellow. Su. & V. I. 3.75

*O. Forbesii. Many fls., large, chestnut-brown & yellow. Au. C. 5.00

b*O. varicosum var Rogersii. Many flowered. fls. larger than the type; S&P yellow spotted with brown; L large yellow. Au. & Wi. C. 4.50
Established plants in 3½ in. pots $4.50 each, 4 in. pot $5.00 each, 4½ in. pots $5.50 each, 5 in. pots $6.00 each.

PHALAENOPSIS

b*Phal. Aphrodite. fls. 2½ in. to 4 in. across, sepals and broader petals pure white; L three lobed, spotted and streaked with purple and yellow. Blooms from September to end of June. W. Established plants for later delivery $7.50 each.

b.Phal. Lueddemanniana. fls. 2 in. across; S&P whitish barred with amethyst on outer half & cinnamon-brown on inner half; L three lobed, side lobes whitish, mid-lobe amethyst-purple. This species has many varieties, and the bars on S&P may be all brown or all amethyst. On some plants the S&P are completely amethyst without any white or brown. V. & Sp. W. Established plants in 4 in. pots $6.50 each.

b.Phal. rosea. fls. rose-purple, 1 to 1½ in. across. V. W. Established plants in 4 in. pots $6.50 each, some plants will be in bud and bloom.

b*Phal. Schilleriana. fls. 2½ to 3½ in. across; sepals and broader petals light rose-purple; L three lobed, lighter in color, front lobe spotted with amethyst-purple. January to March. W. Established plants in 4 in. pots $6.50 each, large plants in 6 in. baskets with 3 to 5 leaves 10 to 14 in. long $9.50 each, plants in 7 in. pots with 4 to 5 leaves 12 to 18 in. long $12.50 each, plants in 8 in. baskets with 6 to 8 leaves 8 to 15 in. long $13.50 per plant.

PHALAENOPSIS HYBRIDS

b*Phal. Gloriana. fls. 2½ to 3½ in. across, color of fls. white to dark pink. Wi. W. Plants in 6 in. baskets with leaves up to 10 in. long $9.50 ea.

b*Phal. Gloriosa. fls. 2 to 3 in. across, color of fls. white to pink. Wi. W. Plants in 6 in. baskets $9.50 each.

b*Phal. Leucorrhoda. fls. 2½ to 3½ in. across, pink. Wi. W. Plants in 6 in. baskets $7.50 each, plants in 8 in. baskets with 4 to 5 leaves 10 to 15 in. long $12.50 per plant.

SOPHRONITES

Soph. cernua. Dwarf species. fls. cinnabar-red, about 1 in. across. Wi. C. 3.50
Soph. coccinea. " " fls. large, brilliant rose-scarlet. Wi. C. . 3.50
Soph. violacea. " " fls. 1 in. across, violet-magenta. Wi. C. .. 3.50

ZYGOPETALUMS

Zy. crinitum. fls. 2 to 3 in. across; S&P green barred with brown; L white lined with crimson-red or blue-violet veins. Wi. to Sp. I. 4.50

b*Zy. Mackayi. fls. about 2 to 3 in. across; S&P yellowish-green blotched with purplish-brown; L white lined with violet-purple veins. Au. to Wi. I. 4.50

MISCELLANEOUS SPECIES THAT ARE BEING DISCONTINUED

In most cases there are only one or two plants of each species. If possible please list a second choice when ordering. Most plants are established.

Acineta densa. (fls. red & yellow. Sp. I.)................................$2.25

Arpophyllum giganteum. plant in 6 in. pot 4.50

b.Brassavola nodosa. (fls. large, white, fragrant at night. Au. & V. I.) Established plants in 3 in. pots $2.50 each, 3½ in. pots $3.00 each.

Brassavola species. (fls. large, white. Au. I.) plant in 4 in. pot 1.00

Brassia choropsis. (fls. green & yellow) plants in 4 in. pots $2.75 each.

Camaridium species. plant in 4 in. pot 2.55

Catasetum Oerstedi. (fls. greenish) plant in 4 in. pot 1.95

Chysis bractescens. (beautiful white fls. Sp. I.) plant in 5 in. pot 4.50

b.Cymbidium elgans. (Many flowered, fls. 1½ in. across, yellow. Au. C. or I.) large plants $4.00 each, smaller plants $2.00 each.

b*Cymbidium Gammeanum. Natural Hybrid. (fls. yellowish, beautiful. Su. C. or I.) Medium size plants $2.25 each.

Dendrobium aureum. (fls. yellow and brown. Sp. W.) plant in 3 in. pot 3.50

Dendrobium canaliculatum. (fls. white, L purple, fragrant. Au. W.) plant in 4 in. pot $3.50

Dendrobium Devonianum. (Spikes 3 flowered, 2 in. across, creamy white tinged with pink; L white margined with purple, orange at base, beautifully fringed. Sp. W.) Plant in 3 in. pot $3.25.

Dendrobium Draconis. (fls. 1½ in. across, white, L stained with red. Sp. & Su.I.) Plants in 3 in. pots $3.50 each.

Dendrobium Falconerii. (fls. 2 to 3 in. across, white & purple. Sp. & Su. I.) Plants in 3 in. pots $3.25 each.

Dendrobium longicornu. (2 to 4 fls. in clusters, white & yellow. Sp. I.) Plant in 3 in. pot $3.25.

b*Dendrobium nobile var. Wallichianum. (fls. more brightly colored than the type. Wi. & Sp. I.) Plants in 3 in. pots $3.00 each.

Dendrobium Speciosum. (Spikes many flowered, 1 to 2 in. across, creamy yellow; L spotted with purple. V. I.) Plants in 6 in. pots $6.00 each, smaller plants $4.50 each.

Dendrobium tetragonum. (fls. greenish, L creamy white. Sp. W.) Plant in 4 in. pot $4.50.

Dendrobium Undulatum. (Spikes 10 to 20 flowered, 2 in. across, yellowish brown. Sp. & Su. W.) Plant in 7 in. pot $7.50.

b.Epidendrum atropurpureum. (fls. green, brown, white & bright crimson. Sp. I.) Plants established on tree fern slabs $3.00 each.

Epidendrum Radiatum. (3 to 7 fls. 2 in. across, S&P cream color, L white with purple lines. V. I.) Plant in 6 in. pot $4.00.

b.Epidendrum species. (fls. green & white. Sp. I.) Large plant of over 25 bulbs in 6 in. pot $3.50.

Epidendrum Stamfordianum. (fls. yellow spotted with red. Sp. I.) Plant in 6 in. pot $5.00.

Gongora tricolor. (fls. yellow and brown. Sp. I.) Plants in 3½ & 4 in. pots $2.25

Gongora species. Plant in 3½ in. pot $2.00.

b*Laelia albida. (5 to 15 fls. 1½ to 2 in. across, white or flushed with rose. Au. to Wi. C.) Unestablished plants mounted on tree fern $1.00 each, small established plants $1.25 each.

b*Laelia autumnalis. (3 to 9 fls. 4 in. across, rose; L purple, sweetly scented. Au. to Wi. C.) Established plants $2.50 each, plants that haven't flowered $1.85 each.

Laelia furfuracea. Very Rare. (Well formed rose-purple fls., 5 in. across. Au. C.) Unestablished plants $2.50 each.

b*Laelia Gouldiana. (hybrid between L. autumnalis and L. anceps) (3 to 6 fls., deep rose-purple. Wi. C.) unestablished plants $2.50 each.

b.Laelia rubescens. (4 to 8 fls. about 2 in. across, white or flushed with rose. Wi. to Sp. C.) plant in 6 in. pot $3.00; plants in 4 in. pots $2.75; 3 in. pot, unflowered plant $1.00; smaller plants unpotted, but blooming size $1.50 each.

b.Laelia majalis. (1 to 2 fls. 6 to 8 in. across; rose; L white in center, marked & spotted with mauve-purple on sides. Sp. C.) unestablished plants $1.75 each.

Lycaste species. (fls. white) Plant in 4 in. pot $2.75.

b.Oncidium Cebolleta. (Many fls., about 1 in. across, yellow spotted with brown, L bright yellow. Sp. I.) Plants in 3 in. pots $4.00 each.

Oncidium incurvum. (Many fls., S&P rose-pink, L white with yellow crest. Au. & Wi. C.) 4½ in. pot $2.75, 4 in. pot $2.50, 3½ in. pot $2.00.

Oncidium longipes. (2 to 5 fls., S&P red-brown and yellow, L yellow. Su. I.) Plant in 4½ in. pot $3.50.

b.Oncidium lurides. (Many fls., yellowish-green & brown. Su. I.) Plants in 3½ & 4 in. pots $2.50 each.

b.Oncidium maculatum. (fls. greenish-yellow blotched with brown, L yellow or white. Wi. I.) Established plants in 6 in. pots $2.75 each, 4½ in. pots $2.00 each.

b.Oncidium tigrinum. (fls. large, S&P yellow & brown, L yellow, fragrant. Au. & Wi. C.) Established plants in 5 to 6 in. pots $3.75 each, 4 in. pots $3.50 each, 3 in. pots $2.00 each.

Odontoglossum Bictoniense. (S&P greenish-yellow, blotched with chestnut-brown. Au. C.) Small plants 75¢ each.

Odontoglossum Insleayi. (fls. yellow, spotted & barred with chestnut-red. Au. C.) Plants in 3½ in. pots $3.00 each.

Pescatorea cernia. (fls. yellow) Plants in 5 in. pots $3.00 each.

Rhyncostylis retusa. (Many fls. 3/4 in. across, fragrant, S&P white spotted with amethyst-purple, L purple. Su. W.) Large plant in 6 in. pot $6.50.

Stanhopea ecornuta. (fls. white) $3.25 per plant.

"   species. 1 plant $1.50.

Trichopilia coccinea. (fls. large, S&P brownish-green, L crimson. Su. & Au. I.) Plants in 3 and 3½ in. pots $2.75 each.

Trichopilia turrialbensis. (fls. yellow) Plant in 3 in. pot $2.00.

Vanda parviflora. (S&P yellow, L whitish. Su. I.) Plant in 4 in. pot $4.00.

Zygopetalum discolor. (fls. white & purple. Sp. I.) Plant in 5 in. pot $5.00.

SPECIAL OFFER of mixture of labelled and unlabelled Cattleya species that have large sized flowers. These plants flower around Christmas and Easter and are all flowering size, but need to be given a litle care to build the plants up. Some of them will probably flower within less than one year. We recommend these also for experimental purposes. $1.75 each, 5 for $7.50.

ANTHURIUM ANDRAEANUM HYBRID SEEDLINGS

These plants are of a size that should flower within one year. They are mixed colors and are from a well known hybridizer. Colors will vary from red to white.

plants in 2½ in. pots, 4 to 6 in. high	$1.00 each
plants in 3 in. pots, 5 to 8 in. high	1.35 each
plants in 3½ in. pots, 5 to 8 in. high	1.45 each
Birds Nest Anthurium, nice large plant in 10 in. pot	10.00

CLIVIA HYBRIDS

Flowers vary from orange to deep red-orange. The plants have wide dark green leaves and are decorative when not in bloom. The plants should be dried off in the winter in order to produce flower spikes. Medium large plants in 5 to 6 in. pots $3.00 each, large plants in 7 in. pots $3.50 each, larger plant in 8 in. pot $4.00.

ORCHID GROWERS SUPPLIES

OSMUNDA FIBER

Large bales approximately 18" x 21" x 36", and weighing approximately 55 to 60 lbs. when packed. Due to atmospheric conditions the weight may vary, however the amount will be the same.
1 bale $10.50, 5 bales $10.25 each, 10 bales $9.25 each, 15 to 99 bales $9.00 each, 100 bales or more $8.00 each. These prices are f.o.b. Florida shipping point. We can make shipment from Kirkwood, Missouri at $12.50 per bale f.o.b. Kirkwood.

CELLULOID LABELS: Prices post paid

WHITE

		100	250	500	1,000
Stick-in type	(4" x 5/8")	$2.00	$4.50	$8.00	$15.00
Wired type	(3½" x 5/8")	$2.50	$5.00	$9.00	$17.50

COLORED - Red, Blue or Yellow
Stick-in type (4" x 5/8") 50 - $1.25, 100 - $2.00

TRACE L PLANT FOOD

½ lb. jar 65¢ post paid   35 lb. drum $21.00 shipping charge prepaid
1 lb. jar $1.00 " "   15 lb. drum $ 9.00 " " "
5 lbs. bulk $3.00, f.o.b. Kirkwood, Missouri.

ORCHID SPRAY

Controls scale, beetles, thrip and other orchid pests. A compound of DDT, Rotenone and several other ingredients, to be mixed one part of concentrated insecticide to 400 parts water. 1 pint $4.00.

SNAIL & SLUG POWDER

A compound containing DDT and Metalhyde to control snails, slugs and sow bugs. Should be applied to benches where insects travel. 2 lbs. $3.25.

POT WATERER

Pot Watering Valve with 14 in. tip. Shuts off between pots thus saving water. $3.50 each.

HAND SPRAYS

Hand Spray and Valve to fit standard hose. Used to spray seedlings, or may be used to spray water in the air to increase the humidity. Makes a fine mist spray that will not disturb the potting material around the seedlings. $3.50 each.

FLOWER POTS

Thumb sizes - 1 in., 1¼ in. and 1½ in. $3.00 per hundred of one size. Larger size flower pots for local customers only. Prices on request.

ORCHID TUBES, 5 inch, with caps. 1 doz. 50¢, 100 $3.75, 500 - $17.50, 1,000 - $32.50
Write for prices on larger quantities.

TAYLOR HYGROMETERS: Wet and Dry Bulb Type $6.50 each, post paid.

GREENHOUSE THERMOMETERS: $1.25 each, post paid.

MAXIMUM-MINIMUM THERMOMETERS: $10.00 each, post paid.

INDOOR-OUTDOOR THERMOMETERS: $7.50 each, post paid.
With this new type thermometer you can tell at a glance both the outdoor and indoor greenhouse temperature. This thermometer has a handsome ivory case and may also be used in the home.

STANDARD TEMPERATURE ALARMS

The Standard Temperature Alarm is primarily designed for use in greenhouses. In places where heat is provided through automatically operated oil burners or stokers, and there is an ever present danger of loss of heat through mechanical or electrical power failure, installation of the Standard Temperature Alarm assures an automatic warning in case of failure. Where hand fired heaters are installed, a Standard Alarm provides an automatic check-up on human forgetfulness or oversight. These Alarms will guard against low or high temperatures twenty-four hours a day.

One cold snap or breakdown might cost you hundreds or thousands of dollars which could have been prevented, had you had sufficient warning.
Price $17.00 each, plus postage. Shipping weight 3 lbs. Prices do not include Wire, Batteries or Bell. Circular sent on request.

RECORDING THERMOMETERS

For use whenever knowledge is desired if temperature goes above or below any given point. Furnished with Daily Chart No. 3 or Weekly Chart No. 2. Range of Temperature - 20° to 120° F. Price $60.00 F.O.B. shipping point.

GRO-QUICK HEATING CABLES & THERMOSTATS

Heating cables and thermostats for heating hot beds, cold frames, orchid cabinets, wardian cases, seed beds, propagation beds, aquariums, to prevent water pipes from freezing, etc. Literature and price list sent on request. We stock a complete line of all Gro-Quick products. All cables and thermostats are sent post paid.

BUGHOZZERS

An applicator for distributing Trace L Plant Food or insecticides easily and effectively. This applicator connects to an ordinary faucet and when filled with plant food or concentrated insecticides proportionally mixes them with the water as you spray your plants with a hose. This machine works at any water pressure.
One Quart size Bughozzer $34.50 each, shipping charges prepaid.

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TERMS & CONDITIONS:

1. Cash with order, or 50% down payment and balance C.O.D. We will not ship plants C.O.D. unless 50% payment accompanies the order. Payment should be made by check, cashiers check, postal money order, postal note, express money order or by currency when sent by registered mail.

2. We will be unable to accept an order for less than $5.00 worth of plants. This does not apply to items other than plants.

3. This price list cancels all prices previously quoted.

4. All prices are subject to change without notice.

5. All prices on plants in this list are F.O.B. Kirkwood, Missouri.

6. All established plants and hybrids are subject to prior sale. When ordering please if possible list a second choice, as the stock of many species and hybrids is very limited, and when many of the species have been sold additional plants won't be imported.

7. All plants will be shipped via railway express collect, unless we are otherwise instructed.

8. All of the hybrids and established plants, unless otherwise noted, are in stock at the time of printing this price list. All unestablished plants will be imported either this spring or early summer. Anyone wishing to purchase unestablished plants should send their order in as soon as possible, as we do not import large quantities of extra plants. Customers who send their orders in late are often disappointed because we are sold out of the species they ordered.

9. All plants are carefully packed and should arrive in good condition. However, we are not responsible for the safe arrival of the plants. All plants that are shipped by railway or air express are fully insured and once accepted by the carriers, they are responsible for their safe delivery. Plants should be examined carefully upon their arrival, and if there is the slightest indication of damage a claim should be filed immediately with the express company. The express company must see the plants immediately to have a claim considered. Parcel post shipments cannot be insured against loss or damage.

10. We will start making shipments the first of April, unless weather conditions make shipping unadvisable.

11. All established large plants will be shipped out of pots. This cuts down weight and greatly lowers the shipping cost. Customers wishing large plants left in pots should add 50¢ extra per plant to cover additional costs of packing.

12. We are not responsible for delays in delivery of unestablished plants due to strikes, riots, embargo, war, unsuccessful collection of species or any other factors beyond our control.

OUR GUARANTEE:

1. All species plants unless otherwise stated are guaranteed to be of blooming size, in good condition and true to name as labelled by growers or exporters. In importing orchid plants there is often a certain amount of leaf drop, however this is quite common and does not hurt the plants.

2. Our liability, in all instances, is limited to the purchase price of the plants. We give no warranty, express or implied, as to the productiveness of any plants we sell and will not in any way be responsible for the crop.

April 1, 1951

OTHER MISCELLANEOUS SPECIES THAT ARE IN STOCK OR WILL BE IMPORTED

Aerides quinquevulnerum. (fls. white & amethyst. Su. W.) unestablished $3.50 ea.
b. Calanthe Elmerii. Deciduous. (fls. pink to white. Wi. I.) plants in 3 in. pots $2.75 each.
Epidendrum xanthinum. (fls. in clusters, bright yellow. Wi. I.) unestab. $4.00 ea.
Grammatophyllum scriptum. (fls. greenish-yellow spotted and striped with brown. W.) unestablished plants $7.50 each.
b. Leptotes bicolor. Dwarf species. (2 to 4 fls. 1 to 2 in. across. S&P white, L purple. Wi. & V. I.) Plants in 2 to 2½ in. pots $3.50 each.
Renanthera Storiei. (fls. large, upper S&P dark orange, lower S beautiful dark crimson; L crimson, yellow and white. V. W.) unestablished plants $7.50 each.
b. Vanda lamellata. (Many fls., 1 to 2 in. across, yellow & brown. Wi. W.) unestab. $3.50 each.
b. Vanilla planifola. Cuttings up to 5 ft. long 50¢ per ft.
Vanilla Pompona. Cuttings up to 3 ft. long $1.00 per ft.

CULTURAL NOTES AND INFORMATION ON VARIOUS SPECIES AND VARIETIES OF ORCHIDS

In the large orchid family there are about 15,000 different species know and thousands of hybrids have been raised in the last 50 years.

Orchids in their native state are found growing in trees and other jungle growth and in the soil. Very few species are found growing in direct sunlight. Most generally the light is filtered to a large extent by the canopy formed by trees. Certain species are even lovers of deep shade. Orchids have been found at all altitudes from sea level to 11,000 feet. Altitude and temperature are apparently closely related. These species from sea level to 3,000 feet will generally tolerate a "warm" temperature (above 65° Fahr.); from 3,000 to 6,000 feet an "intermediate" temperature (55 to 65° Fahr.); above 6,000 feet a "cool" temperature (50 to 60° Fahr.). Of equally great importance is the question of rainfall and humidity. Average humidity in the tropical countries will vary from 60 to 85%. In most of these countries rainfall is heavy for approximately 8 months of the year, the balance of the year being a dry season during which little rain falls, but yet the humidity ranges fairly high.

It is desirable to stimulate these natural conditions as much as possible in the culture of orchids in this country. This may be expressed as maintaining sufficient heat in the winter, and in most cases preventing excessive high temperatures in the summer. Whatever the season or temperature, the humidity should be maintained as near the 60 to 85% range as possible; particularly when temperatures rise it is important that humidity be kept as high as possible.

Orchids are divided into three classes, 1. terrestrial, 2. semi-terrestrial and 3. epiphytal.

POTTING MIXTURES FOR ORCHIDS

1. Terrestrial orchids are grown in the type of soil mixture that is used for common garden flowers and about 1/3 leafmold. Bletias, Calanthes, Phaius and Vanilla vines are about the only genera included under this classification.

2. Semi-terrestrial orchids are grown in a mixture of equal parts of osmunda, leafmold and peat. Cymbidiums, Cypripediums, Peristerias, Vanda teres and Vanda Miss Joachim are included under this classification, although they are sometimes grown as epiphytes.

3. Epiphytal orchids are grown in osmunda fiber. In their native habitat epiphytal orchids commonly grow in trees or on rocky ledges. Most genera are listed under this classification. Some of the better known genera are Brassavolas, Brassias, Cattleyas, Chysis, Cynoches, Dendrobiums, Epidendrums, Gongoras, Laelias, Lycastes, Miltonias, Odontoglossums, Oncidiums, Phalaenopsis, Renantheras, Schomburgkias, Sophronites, Trichopilias, Vandas, Zygopetalums, etc.

HABIT OF GROWTH

Orchids in regard to their habit of growth are classified under two distinct groups: monopodial and sympodial.

Monopodial Orchids

Aerides, Renantheras, Phalaenopsis and Vandas are typical examples of this type of growth. Monopodial orchids have only one stem. Their single stem grows upright and lengthens indefinitely, producing new leaves season after season. Roots are produced along the stem, whereas flower spikes are produced from the axis of the leaves. In their native habitat Aerides will grow several feet high, and Vandas and Renantheras 10 ft. or higher. Phalaenopsis have a short stem and do not grow more than a few inches. When these plants are potted regularly they are not allowed to become lanky.

Sympodial Orchids

Cattleyas, Laelias and most genera are classified as sympodial orchids. Plants that are under this classification have a number of bulbs that are called "pseudo-bulbs." These pseudo-bulbs usually have one or two leaves at the top and are joined at the base by a stem that is known as a "rhizome." The rhizome on some species may be two inches long between the bulbs, whereas on other species it will be short causing the bulbs to be very close together. The rhizome is the part of the plant from which the roots grow. At the base of the bulbs on each side there will be a dormant eye, from which the new growths develop. With certain genera such as Brassavolas, Laelias and Cattleyas the flower spike develops from a sheath at the top of the bulb. Oncidiums, Odontoglossums, Miltonias and others have eyes at the base of the bulbs which develop into the flower spikes.

PROPAGATION OF ORCHIDS

Orchids are reproduced in three ways; off-sets, division and seeds.

Certain genera such as Dendrobiums and some of the "cane type" Epidendrums produce plantlets from nodes on the pseudo-bulbs of the parent plants. When a shoot forms from a node on the parent plant, root growth may be promoted by tying a small amount of brown osmunda under the shoot and spraying the osmunda daily to keep it moist. After a strong root system has developed the new plant may be served from the parent and potted.

Propagation by division is the method that is more frequently used. Some of the genera that are propagated by division are Brassavolas, Cattleyas, Dendrobiums, Epidendrums, Laelias, Miltonias, Odontoglossums, Oncidiums, Sophronites, Zygopetalums, etc. Species of these genera develop pseudo-bulbs from a creeping rhizome. After flowering the front bulb or bulbs on a plant develop new growths, while the back bulbs remain inactive and serve as a reservoir for a reserve food supply. If the plants are large they may be divided into divisions of four or more pseudo-bulbs each. When dividing a plant the back bulbs should always be checked to make certain that they have a live eye from which a new growth can start. Divisions of less than four bulb should not be made, as there is the chance that the plant, if too small, will not be strong enough to produce flowers. The back bulbs may be placed on the bench on a sheet of news paper and sprayed several times a day until root growth starts, and then they may be potted. The back bulbs may also be potted immediately after division; however the leaves must be sprayed several times a day and the fiber kept dry until root growth is well started. Propagations should receive more shade than plants that are well established and in active growth.

Reproduction of orchid plants by seed is being used more and more by commercial orchid growers and amateurs. This method is usually quite slow and requires a

considerable amount of time, patience and expense. Eighteen months is the record time in flowering a Phalaenopsis plant from the time the seed is sown. Plants rarely bloom so soon as this, it usually requires 3 to 10 years for a plant to produce flowers from the time the seed is sown.

POTTING UNESTABLISHED IMPORTED PLANTS

Plants that are collected from the jungles will generally have a rather unkept appearance, due to being exposed to insects, fungus and climatic conditions in their native habitat. Also plants are sometimes injured by the fumigation and inspection process at the port of entry and by occasional withering due to shipment. This is quite common and may be disregarded with the exception that broken leaves should be trimmed and any blackened or brown leaves removed. Usually imported plants have all or part of their roots left on. When potting monopodial orchids we recommend leaving all the roots on the plants as often they are still alive and they provide support for the plants until established. Monopodial orchids do not have as penetrating a root system as sympodial orchids and are not potted as tightly.

In potting sympodial orchids some growers prefer to remove all the roots before potting; we recommend leaving one or two inches of roots on the plants, as these will provide support for the plants until they are established. The direction of growth can usually be readily ascertainted by observation and this will be found of importance when the plant is placed in the container.

Next to be considered is the container for the plant. Pots of common red burned clay are most commonly used; however for certain genera wooden or wire baskets may also be used. In selecting pots only the unglazed type should be used, as they allow the air to penetrate the walls of the pot and the moisture evaporates faster giving the compost less chance of becoming water-logged, which leads to rot and eventually to the death of the plant. The drainage hole in the bottom of the pot may be enlarged with a hammer, although it is not absolutely necessary.

Epiphytal orchids are grown in a material known as osmunda fiber or osmundine. Osmunda is a fibrous material ranging in color from light yellowish brown to reddish brown to black. The yellowish brown osmunda is more absorbent and softer and is used for seedlings. The reddish brown and black osmunda is coarser and is used for blooming size plants. Osmunda fiber is found in nature as the roots of the Osmunda Fern and may be purchased from most commercial orchid growers or concerns that gather the fiber especially to sell to orchid growers. As purchased it generally comes in clumps of various sizes. Before it may be used for potting it must be cut or chopped into pieces about 1½ in. in diameter. Before chopping it is advisable to spray the fiber with water, as this will help keep down the dust so that chopping will be easier.

The following procedure is usually followed in potting orchids. The size of the pot to be used is determined by the size of the plant. Generally a pot large enough to allow for two additional growths is used. It is better to under-pot than it is to over-pot. Drainage material consisting of broken pots, lumps of charcoal, large gravel or similar material is placed in the bottom of the pot for about 1/3 or 1/4 its depth. When potting sympodial orchids, osmunda is placed between the roots of the plant before it is placed in the pot, and the plant is placed in position in the pot so that the rhizome is level and horizontal with the oldest section of the plant against the side of the pot. Additional osmunda is then forced into the pot to wedge plant in proper position, working material in from the

edge of the pot toward the center, using a round tapered stick or metal potting tool for this purpose. We prefer packing the fiber tight around the roots of the plants, although we do not pot as tight as some growers prefer. How tight the fiber should be packed depends on what genera you are potting. Plants will be much easier to pot if before using the osmunda is moistened. When potting monopodial orchids the same procedure is used, except the plant is placed in the center of the pot, and the fiber is packed loosely instead of tight.

Certain species of vandas have many large fleshy roots and one should not become alarmed if they persist in roaming out of the pot. Phalaenopsis also have large roots that like to roam out of the pots. Because Phalaenopsis are characterized by this type of roots, we like to pot the plants in six to ten inch baskets so that the roots may penetrate the fiber and grow out of the sides and bottom of the basket. Often when the plants are in pots the roots do not penetrate the fiber, but grow over the top of it and out of the pot.

REPOTTING ESTABLISHED PLANTS

In repotting established plants the same procedure is used as that used for unestablished plants except that the dead roots are removed from the plant and the live roots are not clipped. If the fiber is still in good condition it is left on the plant ; however if it is decayed it is removed and replaced with fresh.

CARE OF NEWLY POTTED PLANTS

Plants when first potted should have a good watering, and watering of the potting material should be withheld until active growth starts, water being added only in sufficent quantity and frequency to prevent compost from drying out completely. In this period, on sunny days, leaves and bulbs should be moistened several times a day with water sprayed from any type of spraying equipment or an ordinary hose. Spraying should be done at a time which will allow the plant to dry off before nightfall. Care must be taken to keep temperature above minimum and to prevent excessive light from reaching the plants. Only during the extreme winter months can orchid plants tolerate direct sunlight, and shading must be used from March thru November. Light should be even more reduced until unestablished plants have begun definite root growth, which will usually be two or three weeks after potting.

CYCLE OF PLANT GROWTH

Species orchids, as imported will be found to develop in the following cycle:- Condition on arrival will usually be dormant. Root action then commences; with sympodial orchids this is followed by development of a new growth or lead from the front of the rhizome. This growth will develp into a pseudo-bulb and leaf or leaves. From the pseudo-bulb will develop, upon its maturity, a sheath from which eventually will come the flowers. The sheath is not characteristic of all species, but is generally limited to cattleyas and related genera. Immediately after flowering some species enter into a resting or dormant period after which they again pursue the above cycle; other species start making a new growth immediately after flowering. The complete cycle of growth, flowering, and dormancy usually takes a year for a given plant. Flowering seasons, once established for a given species tend to occur at the same time each year. With monopodial orchids the root growth is followed by new leaves.

CARE OF ESTABLISHED PLANTS

1. Temperature

In general for the various types of orchids the temperature requirements are divided into four divisions, although these exact divisions are not necessarily always followed in commercial orchid growing or in growing orchids out doors in Florida, California and Texas.

A. Tropical House

A night temperature of above 65°, preferably 70° should be maintained. In the winter the day temperature should be 70 to 75°. Phalaenopsis, Vandas, Aerides, Arachnis and a few Oncidium species are grown at this temperature.

B. Cattleya House

A night temperature of 60 to 65° should be maintained. All cattleyas with the exception of C. Citrina should be grown at this temperature. Also Brassavolas, most South American Laelias, some Oncidiums and pratically all Dendrobiums may be included. The day temperature in the winter should be 65 to 70°.

C. Intermediate House

A night temperature of 55 to 58° and a day temperature of 58 to 60°. Odontoglossum Grande, and a number of the Oncidiums, Miltonias and hybrids of these and Odontoglossums will do well at this temperature. In recent years some orchid growers have combined the orchids that were grown in the Cattleya House with those in the Intermediate House considering all as Intermediate. The orchids listed under "B" will stand a night temperature of 5° lower than is listed and can be sucessfully grown in one house.

D. Cool House

A night temperature of 50 to 55° and a day temperature of 55 to 60°. All Columbian Odontoglossums should be grown at this temperature. Most Odontoglossums cannot stand high temperatures and unless a cool temperature can be maintained one should not attempt to grow the cool types of this genera. Cattleya Citrina and the Mexican Laelias also do well at this temperature, although they are often grown as intermediate.

In the summer the cool orchids should be kept below 90° Fahr. and the intermediate and tropical orchids should be kept below a temperature of 100° Fahr., although short periods at slightly higher temperatures will not cause harm. In order to keep orchids that are growing in a greenhouse at the desired temperature the ventilators must be opened wide on hot summer days.

2. Humidity

Every effort should be made to maintain relative humidity above 65%, particularly with higher temperatures. Opening the ventilators causes the humidity to drop, so in the summer the plants should be sprayed several times a day. In the winter months when the sun shines, one spraying a day is sufficent. On cloudy days the plants should not be sprayed unless they are very dry. In order to keep the humidity up on cloudy days the walks and soil under the benches may be sprayed. In the greenhouse the benches may be constructed

so that 3 or 4 inches of coke may be placed in the bottom, and the slats on which the pots are set are placed above the coke or charcoal. When the plants are watered, the coke or charcoal will absorb water; when it later evaporates will help keep up the humidity.

3. Light

Light is of utmost importance in plant vigor and flower development and should be provided by utilizing filtered sunlight. Direct sunlight, except in deep winter, will seriously burn the foliage of plants. Cattleya plants and allied genera should be of a yellowish green color in order to produce the maximum number of flowers, and have flowers of good texture. Plants that are given too much shade will be dark green in color and those that do not receive enough shade will be yellow. Plants that are dark green look the nicest; however often the bulbs on the plants are weak, the leaves narrow and the plants do not produce the number of flowers that they should and the texture is often poor. Plants in the greenhouse are often shaded by spraying the outside of the glass with a mixture of white lead and gasoline. By fall the rain has washed off most of this mixture. Plants may also be shaded with cheese cloth or similar material. Oil paint should not be used for shading, as the rain doesn't wash it off and it is difficult to remove in the fall.

4. Ventilation

Orchids at all times need an abundance of fresh air. In the summer the ventilators will be open to keep the temperature from rising too high. This will give the plants sufficent ventilation. However, in the winter the ventilators should only be opened in the day and they should not be opened very far, otherwise there will be a great amount of heat loss. Also another item to remember is that if the wind is blowing, the ventilators should be opened from the opposite direction, otherwise the plants will be in a draft.

5. Watering

The quickest way to kill an orchid is either to over-water or to underwater. One of the commonest mistakes made by the amateur, is to over-water his plants. In their natural habitat, orchids are subject to torrential rains, followed by almost immediate drying, due to their growth on trees and the like. It is difficult to provide such conditions under cultivation, and with potted plants compost should not be watered until it has dried almost completely, from previous watering. Osmunda should be kept near an optimum condition of being both warm and resiliently moist, not cold and drenched, or dry and brittle. A period of one to two weeks is usually the length of time between waterings. One way to tell when a plant needs water is by lifting the pot, for when the compost is dry the pot will be considerably lighter than when it is damp. With a little experience one soon learns when the plants do or do not need to be watered. Plants in the dormant stage require little water until active growth begins, however they should receive enough to prevent the bulbs from shriveling.

6. Fertilizers

In previous years it was thought that orchids growing in osmunda did better if they weren't given any additional feedings of organic or inorganic fertilizers. In recent years tests have been made with inorganic fertilizers

and it has been found that orchids have sturdier growth and grow faster if they receive regular feedings of weak solutions. It is recommended that seedlings and adult Cymbidiums, Cypripediums and Phalaenopsis be fed once a week and adult plants of other species once a month.

7. Insects and Diseases

For the most part orchids will be found to be resistant to both insects and diseases. Freshly imported unestablished plants will have been treated by the Bureau of Plant Quarantine for both insects and diseases before entry is allowed, and thus should be free of both difficulties.

Snails and slugs are attracted occasionally by the moist conditions necessary for growth of orchids and may be dealt with by use of accepted remrdies such as "Kilslug" or poisoned bran.

Sow bugs are best eliminated by using a trap consisting of a potato cut in half and laid near the plants. A slight channel, leading to a hollowed out place, should be cut into the potato, and this channel should be laid downward on the bench or slat. Any sow bugs thus trapped can easily be killed.

Heavy infestations of insects are usually best treated by an immersion of the plant in a solution of nicotine and soap for several hours. A spray of this solution is useful to discourage initial attacks of insects. The materials should be diluted in water to about the same proportions as are used to spray roses, or a little less. Commercial preparations of DDT, nicotine and rotenone are commonly used. To keep the plants from becoming infested in the greenhouse it is a good idea to spray about every month, whether needed or not.

Plants grown in a wardian case seldom become infested, but if they should, it is an easy matter to control insects on plants that are grown in a small case. In the greenhouse the floor should be covered with pea gravel, cinders or a similar material; derbis should never be allowed to accumulate under the benches. In all instances the greenhouse should be kept as clean as possible.

Rot, a highly infectious disease, brought on by cold and overwatering, is sometimes found. If it develops, drastic treatment is necessary, by cutting off affected portion of plant and treating cut portion with powdered sulfur. Then the plant should be placed where it will receive a free circulation of air, and water should be withheld for several days.

GROWING ORCHIDS WITHOUT A GREENHOUSE

In growing orchids it is not necessary to have a greenhouse or a lot of special equipment. Certain species such as Cymbidiums, Laelias, Cattleys and Cypripediums can be grown in a heated sun porch or a kitchen window. Species such as Laelias, Cattleyas and Cypripediums will do better if grown over a pan of water, to provide them with humidity. Pans may be made from galvanized sheet iron by turning up about two inches on the sides and soldering the corners. The pan is filled with water and slats are laid across the top to set the plants on. One thing to remember is that the pots should be above the water, not setting in it; otherwise the fiber or soil's being constantly wet will cause the plants to rot.

For keeping a more even humidity a wardian case or orchid cabinet can be constructed. Wardian cases are commonly made by taking 5 old windows or sashes, pre-

ferbly of the same size and making a cabinet by using four windows for the sides and one for the top. The top sash and one of the side sash should be on hinges so that the plants may be sprayed and ventilated. The bottom of the cabinet may be made of wood and there should be a pan of water with slats across it to set the plants on. To keep the right temperature in the winter a heating cable may be placed in the water or strung in the air. It is best to use a thermostat with the heating cable, otherwise it will be necessary frequently to check the temperature to prevent the plants from becoming too warm. When the sunlight is strong in the summer the plants may be shaded with a curtin or piece of cheese cloth. Also in the summer plants may be hung out doors in shade trees or set on benches under trees where they will receive sunlight that is broken by the tree's leaves; the pots should not be set on the ground. Plants should not receive direct sunlight, and should be sprayed several times a day to prevent excessive drying. It will also be necessary to watch plants for insects, as they are not easy to control in the open as they are in a greenhouse. In certain locations of California and Florida where the temperature does not go below freezing in the winter, the plants may be grown out doors in slat houses the year around.

CONCLUSION

Orchids are hardy plants and can stand much more abuse than many common greenhouse plants. The common misconception is that orchids are very tender and require high temperatures in order that they may be satisfactorily grown. Anyone who is interested in flowers can grow orchids, providing he learns and follow's a few simple instructions.

In the previous pages we have tried to explain the factors necessary in growing blooming size plants. There is so much information on the culture of orchids that it would take volumes to cover it. The information alone that could be given on raising orchids from seed would require many more pages then we have written on general culture.

For more detailed information we recommend "Orchids Are Easy To Grow," by Harry B. Logan and Lloyd C. Cosper and "American Orchid Culture," by Professor Edward A. White. These books may be obtained from Ziff Davis Publishing Co., Chicago, Ill. and the latter from De La Mare Publishing Co., New York, N. Y. They both sell for $6.00 per copy.

GENERAL CULTURAL NOTES ON THE BETTER KNOWN ORCHID GENERA

AERIDES, RENANTHERAS and VANDAS. Monopodial orchids, can be grown in pots or baskets. Should be grown in osmunda, preferably brown fiber. The Vandas may have a little sphagnum moss added to the compost. These species should be kept moist and not allowed to dry out, drainage must be good. They do best when grown in a tropical house.

Under cultivation some of these species have the tendency to lose bottom leaves and the stem assumes a naked appearance. Often roots grow at the top part of the plant and when plants are repotted the stem may be shortened, placing the plant lower in the pot or basket. If roots do not grow at the top part of the stem they may be encouraged by binding sphagnum moss or osmunda around the stem and keeping it moist.

BLETIA. Terrestrial, species of this genus come from China and tropical Central and South America. The Chinese species "Bletia hyacinthina" (syn. B. striata) can be grown out doors and will stand temperatures down to zero. Tropical species should

be planted one bulb to a pot, and they will do better if underpotted. The soil must have good drainage. Should be given some shade.

In fall after flowering, pots may be gradually dried off and leaves will then drop. Pots may then be set under the bench until spring, or bulbs may be taken out and packed in boxes of sand. However, if the bulbs are left in the pots they will keep better and produce sturdier growths in the spring. Flowers are produced from top of bulbs.

BRASSAVOLA. Culture about the same as cattleyas. A number of the species of this genus have been used in crosses with cattleyas and laelias; however the one that is most commonly used is B. Digbyana. Plants flower from the top of the bulbs.

BRASSIA. Plants should be potted in osmunda that has not been packed too tight; drainage must be good. This genus is easily cultivated and may be grown with cattleyas. Flower spikes are produced from the base of the bulbs.

CALANTHE. About 50 species are known, but only a few are cultivated. There are two kinds: evergreen (those that keep their leaves all year around) and deciduous (those that drop their leaves in the winter). The plants should be potted in soil that is well drained. Only the base of the bulbs should be covered with soil. A four inch pot is usually large enough for one plant. Weak solutions of fertilizer given to the plants every two weeks while they are in active growth will help the plants. They need partial shade. The evergreen types should be kept moist all year around and not allowed to dry out. The deciduous species should be gradually dried off in the fall; they will then lose their leaves and spikes will appear from the base of the bulbs. Water should be given only in sufficent quantities to prevent the flowers from wilting. After flowering, deciduous species may be placed under the bench and handled as Bletias.

CATTLEYAS. Plants flower from the top of the bulbs. This is the genus that is usually thought of when orchids are mentioned. The species of this genus have flowers from 2 to 10 inches across and may be had in white and practically all colors except blue. Cattleyas are not difficult to grow, but should be given as much sunlight as possible, without burning the plants. They should receive an abundance of fresh air.

Plants are potted in clay pots in either brown or black osmunda, or a mixture of both. We recommend packing the fiber tight, although we do not pack it as tight as some growers prefer. In the summer on sunny days the plants may be sprayed several times a day to keep the humidity up. They require good drainage and the fiber should be dried out between waterings.

A wire may be inserted in the center of the pot and the bulbs tied to it. This will give the plants a neat appearence and will prevent the bulbs from growing every which way.

CYMBIDIUMS. May be grown as semi-terrestrials or epiphytes. Can be grown in pots in the North, and in the South where the temperature does not drop below freezing they may be planted in beds like ordinary flowers, except that they should have only filtered sunlight. In the North the pots may be set out doors as soon as the danger of freezing is over. This is a good genus to grow in a kitchen window or in a heated sun porch. The compost should always be kept moist and not allowed to dry out between waterings. Plants are of easy culture and flowers may be had in all color combinations, except those containing blue. Flower spikes grow from the base of the bulbs, and on the plants flowers last in good condition as long as two months.

CYPRIPEDIUMS (Lady's-slippers). May be grown as semi-terrestrials or epiphytes.

This genus is becoming more popular for commercial uses. Flowers may be had in shades of green, yellow, brown, pink and red. Some species do well at cool temperatures, and others at intermediate or warm temperatures. Plants should be grown in pots and compost should always be kept moist. If osmunda is used it should not be packed too tight. Plants should not receive as much sunlight as cattleyas.

DENDROBIUMS. These species are also divided into two classes; evergreen and deciduous. They are epiphytes and require plenty of sunlight and fresh air. Compost should be same as that recommended for cattleyas; evergreens also require the same culture. Deciduous types require very little water in the winter, otherwise culture is same as that recommended for cattleyas. This genus flowers from the nodes of the bulbs.

EPIDENDRUMS. Can be easily grown with cattleyas and culture requirements are about the same.

GRAMMATOPHYLLUM. Epiphytes. A compost of osmunda is recommended; must have good drainage and careful watering, should be kept moist at all times. Needs plenty of sunlight.

LAELIAS. Flowers range in size from 1 to 10 inches across, in nearly all colors, except blue. Species of this genus have been extensively intercrossed with cattleyas and Brassavolas in bigeneric and trigeneric crosses. Culture is about the same as that recommended for cattleyas, except that they require more sunlight and a longer resting period after flowering. Plants flower from top of bulbs.

LYCASTE. Plants do best when grown as cool orchids. May be grown as epiphytes or semi-terrestrials, should be kept moist in summer and slightly drier in winter. Too much water will cause rot and drainage must be good. Needs about the same amount as Cypripediums. Plants flower from the base of the bulbs.

MILTONIAS (Pansy Orchids). Can be grown with cattleyas; should be potted in osmunda and drainage must be good. Plants are in active growth nearly all the time and should receive an abundance of water. Plants flower from the base of the bulbs.

ODONTOGLOSSUMS. This genus is more difficult to grow than most genera of orchids. All species with the exception of citrosmum, grande, insleayi and schileperianum should be grown in a cool house. They should be potted in osmunda and the fiber should not be too tightly packed. Compost must be kept moist and drainage must be good. Needs plenty of light and moisture. They are sometimes grown in air-conditioned greenhouses, but cooling systems dry the air so that some type of additional humidification apparatus must be provided. Plants flower from the base of the bulbs.

ONICIDIUMS (Butterfly Orchids). About 300 species are known, some are cool, some intermediate and some warm. Plants should be grown in osmunda that isn't too tightly packed; fiber must be kept moist and drainage must be good. Plants needconsiderable light. Flower spikes are produced from the base of the bulbs.

PERISTERIAS (Dove Orchids). Terrestrials or semi-terrestrials, however some growers prefer to grow them in osmunda. During the growing season the compost should be kept moist and not allowed to dry out. After growth is completed there should be a decided rest period and water should be gradually withheld. When new growth and flower spike appears after the rest period, water supply should be gradually increased. Flower spike develops from the base of the bulb.

PHALAENOPSIS (Moth Orchids). Epiphytes, should be potted in baskets or pots in brown osmunda. Fiber should not be tightly packed. Compost must always be kept moist and not allowed to dry out. The humidity should be kept high. Plants are of monopodial growth and do not have any reserve food supply. They will do better if given liquid fertilizer once a week. They should be grown in a tropical house and should receive more shade than is given to cattleyas. Leaves should be green in color, not yellow or dark green. The plants should be sprayed at a time in the day so that they will dry before night, as water in the leaves at night causes wet rot.

White species flower from September to the end of June; spikes have 6 to 15 or more flowers. When cutting the spikes, it is best to cut them off as close to the flowers as possible, thus leaving a long stem on the plant. From the nodes along the stem new flower spikes will develop. If one has a few plants they may be kept in bloom almost continously by using the above method when cutting the flowers.

The pink species flower only once a year; however, spikes usually have 30 or more flowers. On P. Schilleriana and P. Stuartiana the leaves are beautifully motted with silvery gray and are purple underneath. The plants are decorative even when not in flower.

RHYNOCSTYLIS. Culture as that recommended for vandas.

SOPHRONITIS. Small species related to cattleyas, laelias and brassavolas. These species are used in crossing to produce beautiful flowers of red and pink shades. Should be grown in a compost of about 2/3 brown osmunda and 1/3 sphagnum moss, must be kept moist. They should receive a little more shade than is recommended for cattleyas. They can be grown with cattleyas, but do best as a cool orchid. Flowers develop from top of bulbs.

TRICHOPILIA. Should be potted in brown osmunda that isn't too tightly packed. Must be kept moist when in active growth and slightly drier when dormant. Doesn't require quite as much sunlight as cattleyas. Flower spikes develop from base of bulbs.

VANILLA, The only orchid that is a vine and has any economic value. May be grown as a terrestrial or semi-terrestrial. Must be kept moist at all times and compost well drained. May be grown with cattleyas or in a tropical house; needs as much sunlight as possible. Flowers are produced from the axis of the leaves. May be easily propagated by cutting vines into two or three ft. sections. These sections may be potted and kept moist; a new growing tip will start from one of the eyes in the axis of the leaves. Vanilla extract that is commonly used in cooking is extracted from the seed pods.

ZYGOPETALUMS. Epiphytes, may be grown with cattleyas. The best species is mackayi, as it blooms around Christmas and the flowers are shaded with blue. It is one of the few orchid species that have blue flowers. It may be grown as a semi-terrestrial or an epiphyte. Compost must be kept moist at all times. Plants must be partly shaded. May be grown with cattleyas, however they prefer a cool temperature in summer. Flower spike develops from the base of the bulbs.